

14  
CLAIMS

What is claimed is:

1. An elastomeric cover for an orthopedic implant, said elastomeric cover having a seamless articulating surface which is at least part of a three-dimensional curved surface, wherein a cross-section of a portion of said seamless articulating surface subtends an arc greater than 180 degrees.
2. The elastomeric cover according to claim 1, wherein said seamless articulating surface comprises a portion of a sphere greater than a hemisphere.
3. The elastomeric cover according to claim 1, wherein said elastomeric cover comprises a mold-parting seam on a non-articulating surface thereof.
4. The elastomeric cover according to claim 3, wherein said non-articulating surface comprises an inner surface of said elastomeric cover that is adapted to contact an outer surface of rigid part of an orthopedic implant.
5. The elastomeric cover according to claim 3, wherein said non-articulating surface comprises an extraneous portion extending away from said seamless articulating surface.
6. The elastomeric cover of claim 5, wherein said extraneous portion is removable prior to implantation of said orthopedic implant in a recipient.
7. An orthopedic implant at least partially covered with an elastomeric cover, said elastomeric cover having a seamless articulating surface which is at least part of a three-dimensional curved surface, wherein a cross-section of a portion of said seamless articulating surface subtends an arc greater than 180 degrees.

8. The orthopedic implant according to claim 7, wherein said seamless articulating surface comprises a portion of a sphere greater than a hemisphere.
9. The orthopedic implant according to claim 7, wherein said elastomeric cover comprises a mold-parting seam on a non-articulating surface thereof.
10. The orthopedic implant according to claim 7, wherein said elastomeric cover is produced by at least one of injection molding and blow molding.
11. The orthopedic implant according to claim 7, wherein said elastomeric cover has a thickness in a range of about 1 mm to about 4mm.
12. The orthopedic implant according to claim 7, wherein said elastomeric cover has a material hardness in a range of about 60 Shore A to about 95 Shore A.
13. The orthopedic implant according to claim 7, wherein said elastomeric cover has an elastic modulus in a range of about 10 to about 150 MPa.
14. The orthopedic implant according to claim 7, wherein said elastomeric cover has a smooth surface.
15. The orthopedic implant according to claim 7, wherein said elastomeric cover has a non-smooth surface.
16. A method forming an elastomeric cover for an orthopedic implant, the method comprising:

forming an elastomeric cover having a seamless articulating surface which is at least part of a three-dimensional curved surface, wherein a cross-section of a portion of said seamless articulating surface subtends an arc greater than 180 degrees.
17. The method according to claim 16, further comprising:

forming a mold having a closed cavity in the shape of said seamless articulating surface;

injecting material into said cavity to form said elastomeric cover having a seamless articulating surface, said material also forming an extraneous portion extending away from said seamless articulating surface; and

removing said elastomeric cover from the mold.

18. The method according to claim 16, comprising forming said seamless articulating surface as a portion of a sphere greater than a hemisphere.

19. The method according to claim 17, further comprising forming a mold-parting seam on a non-articulating surface of said elastomeric cover.

20. The method according to claim 17, further comprising detaching said extraneous portion prior to implantation of said orthopedic implant in a recipient.

21. The method according to claim 16, wherein said elastomeric cover is formed by at least one of injection molding and blow molding.